

# United States Environmental Protection Agency WashIngton, D.C. 20480 Water Compliance Inspection Report

Section A: National Data System Coding (i.e. PCS)						
Transaction Code NPDES 1 N 2 5 3 DC0000		yr/mo/day 2 12/08/09 Remarks		Inspection Type L8 _C	Inspecto	г Fac Туре Г 20 <u>2</u>
21						66
Inspection Work Days Facility Solf-M 67 69	fonitoring Evaluation Ra 70		QA			Reserved
07 05		71 72 E Facility Data		73	74 75	80
Name and Location of Facility Inspe			to	Entry Time/Dat	•	Permit Effective Date
POTW, also include POTW name an	d NPDES permit num	ber)		9:00 AM Augus	174	06/19/2009
Potomac Electric Power Company, Inc. Benning Generating Station				Exit Time/Date		Permit Expiration Date
3400 Benning Road, NE Washington, DC 20019				5:00 PM August 9, 2012		06/18/2014
Name(s) of On-Site Representative(s 1. Fariba Mahvi, Lead Environmental 2. Heather Brinkerhoff, HB Consulting, 3. Mike Williams, Power Plant Asset M 4. Roger Williams, Environmental/Safe 5. Larry Merkel, Underground Conduit L 6. Steve Ortel Lab Manager, (PEPCO H 7. Kenneth Boone, Plant Technician (Pi	ngineer (PEPCO Holdin LLC 202-330-7431 lanager (PEPCO Energ ty Manager (PEPCO El Lead Technician (PEPC loldings, Inc.)	ngs, Inc), 202-331- ny Services), 202-38 nergy Services), 70 O Holdings, Inc)	88-2621	descriptiv	cility Data (e.g., ve information)	ISC NAICS, and other
Name, Address of Responsible Offic	ial/Titis/Phone and Fa			Cor	ntacted	
George Nelson, Vice President Operations and Engineering						
701 Ninth Street, NW, Washington, DC	20068			_x_Y	'es No	
	Section C: Areas Ev	alusted During Inc	nnantlan (C	hack anhy those	rrana avalentad	•
X Permit	X Self-Monitoring	Program	Pret	reatment	leas evaluated	MS4
X Records/Reports X Facility Site Review	X Compliance So X Laboratory	chedules	X Pollution Prevention X Storm Water			
X Effluent/Receiving Waters	X Operations & N	Maintenance		Storm vvater Combined Sewer Overflow		
X Flow Measurement Sludge Handling/Dispo			Sanitary Sewer Overflow			
	Sact	ion D: Summary o	f Elndlago	Comments		
(Attach add	litional sheets of namati	ve and checklists, i	including Si	ngle Event Violation	codes, as nece	ssary)
SEV Codes SEV Des E0013: Improper/Incorrect Reporting-1 2012.	***************************************	pection reports were	e omitted for	r the months of Apr	il. August and D	ecember of 2011 and February of
Name(s) and Signature(s) of Inspector(s	.)	Agency/Office/Ph	one and Fa	x Numbers		Date
Adlon Chinkuyu Dunyu		District Department of the Environment /Water Quality Division/202-635-2193			August 9, 2012	
Charles Hufnagel	EPA/OECEJ-FIP/410-305-2775 fax410-305-3093			093	August 9, 2012	
Division/202-727-6			nt of the Environment /Water Quality 6529		August 9, 2012	
David Pilat	District Department of the Environment /W ater Quality Division/202-281-3963			Quality	August 9, 2012	
Signature of Management Q A Reviewer		Agency/Office/Phone and Fax Numbers			Date	
Comments	-					

		PERMIT NO. <u>DC0000094</u>	
SECTIONS F THRU L: COMPLETE ON ALL INSPECTIONS, AS APPROPRIATE. APPLICABLE	N/A = NOT		
SECTION F - FACILITY AND PERMIT BACKGROUND		<u> </u>	
ADDRESS OF PERMITTEE IF DIFFERENT FROM FACILITY (Including City, County and ZIP code)	DATE OF LAST PREVIO July 28, 2011 FINDINGS	DUS INVESTIGATION BY EPA/STATE DDOE	
Same	Industrial spill from cooling	towers/cooling water splashed on the ground an	nd
		ater drains. 2 Improper/incorrect Reporting – infall data associated with stormwater sampling of	on
SECTION G - RECORDS AND REPORTS		8	
RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT.  DETAILS:	X_ YES NO N/A	(Further explanation attachedX)	
(a) ADEQUATE RECORDS MAINTAINED OF:			
(i) SAMPLING DATE, TIME, EXACT LOCATION		<u>X</u> YES _ NO _ N/A	
(ii) ANALYSES DATES, TIMES		<u>X</u> YES _ NO _ N/A	
(iii) INDIVIDUAL PERFORMING ANALYSIS		<u>X</u> YES _ NO _ N/A	
(iv) ANALYTICAL METHODS/TECHNIQUES USED		_X YES _ NO _ N/A	
(v) ANALYTICAL RESULTS (e.g., consistent with self-monitoring report data)	OK.	_X YES _ NO _ N/A	
(b) MONITORING RECORDS (e.g., flow, pH, D.O., etc.) MAINTAINED FOR A MINIMU INCLUDING ALL ORIGINAL STRIP CHART RECORDINGS (e.g., continuous monito calibration and maintenance records).		_X_YES NO N/A	
(c) LAB EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS KEPT.		<u>X</u> YES _ NO _ N/A	
(d) FACILITY OPERATING RECORDS KEPT INCLUDING LOGS FOR EACH TREATM	ENT UNIT.	<u>X</u> YES _ NO _ N/A	
(e) QUALITY ASSURANCE RECORDS KEPT.		<u>X</u> YES _ NO _ N/A	
(f) RECORDS MAINTAINED OF MAJOR CONTRIBUTING INDUSTRIES (and their com- PUBLICLY OWNED TREATMENT WORKS.	pliance status) USING	YES NO _X_ N/A	
SECTION H - PERMIT VERIFICATION			
INSPECTION OBSERVATIONS VERIFY THE PERMIT. X YES DETAILS:	NO N/A	(Further explanation attachedX)	
(a) CORRECT NAME AND MAILING ADDRESS OF PERMITTEE.		XYES NO N/A	
(b) FACILITY IS AS DESCRIBED IN PERMIT.	10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	_X YES _ NO _ N/A	
(c) PRINCIPAL PRODUCT(S) AND PRODUCTION RATES CONFORM WITH THOSE STAPPLICATION.	ET FORTH IN PERMIT	<u>X</u> YES _ NO _ N/A	
(d) TREATMENT PROCESSES ARE AS DESCRIBED IN PERMIT APPLICATION.		<u>X</u> YES _ NO _ N/A	
(e) NOTIFICATION GIVEN TO EPA/STATE OF NEW, DIFFERENT OR INCREASED DI	SCHARGES	_ YES _ NO _X N/A	
(f) ACCURATE RECORDS OF RAW WATER VOLUME MAINTAINED. (Including	recycled)	X YES _ NO _ N/A	
(g) NUMBER AND LOCATION OF DISCHARGE POINTS ARE AS DESCRIBED IN PER	MIT.	_X YES _ NO _ N/A	
(h) CORRECT NAME AND LOCATION OF RECEIVING WATERS.		<u>X</u> YES _ NO _ N/A	
(i) ALL DISCHARGES ARE PERMITTED.		_X YES _ NO _ N/A	
Comments: Improper/Incorrect Reporting- Monthly stormwater inspection reports were omitted for the mo	onths of April, August and Dec	cember of 2011 and February of 2012.	

	PERMIT NO. <u>DC0000094</u>
SECTION I - OPERATION AND MAINTENANCE	
TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED X_YES NO N/A (Furt DETAILS: New oil/water separator in service at Outfall 201. Same oil/water separator, settling tanks and filters remain op	
(a) STANDBY POWER OR OTHER EQUIVALENT PROVISIONS PROVIDED.	_X YES _ NO _ N/A
(b) ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE.	_X YES _ NO _ N/A
(c) REPORTS ON ALTERNATE SOURCE OF POWER SENT TO EPA/STATE AS REQUIRED BY PERMIT.	_YES _ NO _X N/A
(d) SLUDGES AND SOLIDS ADEQUATELY DISPOSED. Once per year by Triambirate, Inc.	<u>X</u> YES _ NO _ N/A
(e) ALL TREATMENT UNITS IN SERVICE.	_X_YES _ NO _ N/A
(f) CONSULTING ENGINEER RETAINED OR AVAILABLE FOR CONSULTATION ON OPERATION AND MAINTENANCE PROBLEMS. Mostly in-house staff, and AMEC	_X YES _ NO _ N/A
(g) QUALIFIED OPERATING STAFF PROVIDED.	_X YES _ NO _ N/A
(h) ESTABLISHED PROCEDURES AVAILABLE FOR TRAINING NEW OPERATORS. Training manual, on-job training	_X YES _ NO _ N/A
(i) FILES MAINTAINED ON SPARE PARTS INVENTORY, MAJOR EQUIPMENT SPECIFICATIONS, AND PARTS AND EQUIPMENT SUPPLIERS.	_X_YES NO N/A
(j) INSTRUCTIONS FILES KEPT FOR OPERATION AND MAINTENANCE OF EACH ITEM OF MAJOR EQUIPMENT.	_X YES _ NO _ N/A
(k) OPERATION AND MAINTENANCE MANUAL MAINTAINED. SOPs for preventive maintenance (e.g. O/W separator)	<u>X</u> YES _ NO _ N/A
(l) SPCC PLAN AVAILABLE. Included in Integrated Contingency Plan (ICP) revised 2010, SWPPP revised 2012	_X YES _ NO _ N/A
(m) REGULATORY AGENCY NOTIFIED OF BY-PASSING. (Dates)	_YES _ NO _X_ N/A
(n) ANY BY-PASSING SINCE LAST INSPECTION.	_ YES _ NO _X_ N/A
(o) ANY HYDRAULIC AND/OR ORGANIC OVERLOADS EXPERIENCED.	_ YESX NO N/A
SECTION J - COMPLIANCE SCHEDULES	
PERMITTEE IS MEETING COMPLIANCE SCHEDULEX_YES NO N/A (Fur	ther explanation attachedX_)
CHECK APPROPRIATE PHASE(S): TMDL Implementation Plan	
x_ (a) THE PERMITTEE HAS OBTAINED THE NECESSARY APPROVALS FROM THE APPROPRIATE AUTHORITIES	TO BEGIN CONSTRUCTION.
_x_ (b) PROPER ARRANGEMENT HAS BEEN MADE FOR FINANCING (mortgage commitments, grants, etc.).	
_x_ (c) CONTRACTS FOR ENGINEERING SERVICES HAVE BEEN EXECUTED.	
x (d) DESIGN PLANS AND SPECIFICATIONS HAVE BEEN COMPLETED.	
x (e) CONSTRUCTION HAS COMMENCED.	
x (f) CONSTRUCTION AND/OR EQUIPMENT ACQUISITION IS ON SCHEDULE.	
_x_ (g) CONSTRUCTION HAS BEEN COMPLETED.	
(h) START-UP HAS COMMENCED.	
(i) THE PERMITTEE HAS REQUESTED AN EXTENSION OF TIME.	
Comments:	

<sup>1.</sup> Manhole K/Outfall 101 has been completed and is sampled during qualifying storm events.
2. TMDL implementation plan is in progress, stormwater filter boxes and metal booms have been ordered. Oil booms have been installed around storm water inlets, scrap metal has been removed from the sites, cracks have been repaired, and parking over manhole inlets is no longer permitted.

	PERMIT NO. DCC	0000094
SECTION K - SELF-MONITORING PROGRAM		
PART 1 - FLOW MEASUREMENT (Further explanation attached X  PERMITTEE FLOW MEASUREMENT MEETS THE REQUIREMENTS AND INTENT OF THE PERMIT.  DETAILS:	_X_YES _ I	NO _ N/A
(a) PRIMARY MEASURING DEVICE PROPERLY INSTALLED.	<u>X</u>	YES _ NO N/A
TYPE OF DEVICEWEIR _PARSHALL FLUMEMAGMETERVENTURI METER _X_OTHER (Sp_003. Outfall 201 utilizes hourly totalizers and pump curves to calculate total flow.	ecify Totalizer (~v	vater meter) @ Outfall
(b) CALIBRATION FREQUENCY ADEQUATE. (Date of last calibration Outfalls 003 & 201 meters do not need calibration	nYES1	NO X N/A
(c) PRIMARY FLOW MEASURING DEVICE PROPERLY OPERATED AND MAINTAINED.	_X_YES _ 1	NO _ N/A
(d) SECONDARY INSTRUMENTS (totalizers, recorders, etc.) PROPERLY OPERATED AND MAINTAINED.	_YES _	NO <u>X</u> N/A
(e) FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGES OF FLOW RATES.	X YES _ 1	NO _ N/A
PART 2 - SAMPLING (Further explanation attached X )  PERMITTEE SAMPLING MEETS THE REQUIREMENTS AND INTENT OF THE PERMIT.  DETAILS: PEPCO & PES collect all samples & analyze pH on site. Samples for other permitted analytes are sent to a continc.)	X YES 1	
(a) LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES.	<u>X</u> YES _ 1	NO _ N/A
(b) PARAMETERS AND SAMPLING FREQUENCY AGREE WITH PERMIT.	<u>X</u> YES _ 1	NO _ N/A
(c) PERMITTEE IS USING METHOD OF SAMPLE COLLECTION REQUIRED BY PERMIT.  IF NO, _x GRAB _x MANUAL COMPOSITE ( Manhole K) _ AUTOMATIC COMPOSITE	_X_YES _ 1 FREQUENCY	NO _ N/A
(d) SAMPLE COLLECTION PROCEDURES ARE ADEQUATE.	_X YES _ 1	NO _ N/A
(i) SAMPLES REFRIGERATED DURING COMPOSITINGYES	_ NO _X	N/A
(ii) PROPER PRESERVATION TECHNIQUES USED	_X YES _ 1	NO _ N/A
(iii) FLOW PROPORTIONED SAMPLES OBTAINED WHERE REQUIRED BY PERMIT	_YES _ 1	NO <u>X</u> N/A
(iv) SAMPLE HOLDING TIMES PRIOR TO ANALYSES IN CONFORMANCE WITH 40 CFR 136.3	<u>X</u> YES _ 1	NO _ N/A
(e) MONITORING AND ANALYSES BEING PERFORMED MORE FREQUENTLY THAN REQUIRED BY PERMIT.	YES _X	NO _ N/A
(f) IF (e) IS YES, RESULTS ARE REPORTED IN PERMITTEE'S SELF-MONITORING REPORT.	_Y	ES NO X
PART 3 - LABORATORY (Further explanation attached X ) PERMITTEE LABORATORY PROCEDURES MEET THE REQUIREMENTS AND INTENT OF THE PERMIT. DETAILS: Contract Lab was not visited during subject CEI.	X YES _ N	NO _ N/A
(a) EPA APPROVED ANALYTICAL TESTING PROCEDURES USED. (40 CFR 136.3)	_X_YES 1	NO _ N/A
(b) IF ALTERNATE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED.	_YES _ N	NO <u>X</u> N/A
(c) PARAMETERS OTHER THAN THOSE REQUIRED BY THE PERMIT ARE ANALYZED.	_ YES _X	NO _ N/A
(d) SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT.	X YES NO	) _ N/A
(e) QUALITY CONTROL PROCEDURES USED. By Contract Lab	X YES _ N	NO _ N/A
(f) DUPLICATE SAMPLES ARE ANALYZED 10% OF TIME.	X YES _ N	NO _ N/A
(g) SPIKED SAMPLES ARE USED	_X_YES _ N	NO _ N/A
(h) COMMERCIAL LABORATORY USED. O&G, TSS, Metals, PCBs	X YES _ N	NO _ N/A
(i) COMMERCIAL LABORATORY STATE CERTIFIED.	X YES _ N	NO _ N/A
LAB NAME: Microbae Laboratories, Inc. (Lab picks up samples at PEPCO site).  LAB ADDRESS: Baltimore Division, 2101 Van Deman Street, Baltimore, MD 21224. Tel. 410-633-1800/6553		
Comments:  1. Spiked samples are used all year instead of every 6 months, 10% of samples are spiked.  2. Both the on-site and contract laboratories passed the 2012 DMR-QA Study #32 that is required by EPA.		K.

3. Improper/Incorrect Reporting- Monthly stormwater inspection reports were omitted for the months of April, August and December of 2011 and February of 2012.

EPA FORM 3560-3

PAGE 4 OF 5

	<u> </u>					PERMIT NO. DC0	000094
SECTION L - EFF	LUENT/RECEIVING	G WATER OBSERV	ATIONS (Further ex	planation attached	X_)		
OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	VISIBLE FLOAT SOLIDS	COLOR	OTHER
101*	-		-	-	-0	=	No Flow
0132	Yes – on receiving water's surface	No	No	No	No	Clear	
202 & 2033	-		-			8-1	No Flow
201 & 0034	-	-	1 2	2	-	-	No flow
Outfall 013 – ther oily sheen on its surf stormwater, here, as     Outfalls 202 and 4. Outfalls 201 & 00  (Sections M and N: 0)	ace apparently not from well, from nearby area 203 – there were no di 3 - No discharge flow	scharge at the time of m the observed 013 d s of the city. scharges at the two of s at 201 and 003 (Oil.	f inspection. The recei ischarge at this particu utfalls. /Water Separator outfa	ving water/Anacostia F lar time but since there lls). NS (Further explanatio	were other outfall pipe	es which apparently dis	scharged
_ GRAB SAMPLES OBTAINED _ COMPOSITE OBTAINED _ FLOW PROPORTIONED SAMPLE _ AUTOMATIC SAMPLER USED _ SAMPLE SPLIT WITH PERMITTEE _ CHAIN OF CUSTODY EMPLOYED _ SAMPLE OBTAINED FROM FACILITY=S SAMPLING DEVICE  COMPOSITING FREQUENCY							
	27				I		9

#### **Inspection Narrative**

Water Compliance Evaluation Inspection Potomac Electric Power Company, Inc. Benning Road Generating Station 3400 Benning Road, NE Washington, DC 20019

#### NPDES Permit No. DC0000094

**Inspection Date:** 

August 9, 2012

**DDOE Inspectors:** 

Adion Chinkuyu, P.E., Environmental Engineer

George Onyullo, Environmental Protection Specialist

David Pilat, Environmental Protection Specialist

U.S. EPA Inspector: Charles Hufnagel, Environmental Engineer

#### **PEPCO Representatives:**

- 1. Fariba Mahvi, Lead Environmental Engineer (PEPCO Holdings, Inc),
- 2. Heather Brinkerhoff, HB Consulting, LLC,
- 3. Mike Williams, Power Plant Asset Manager (PEPCO Energy Services),
- 4. Roger Williams, Environmental/Safety Manager (PEPCO Energy Services),
- 5. Larry Merkel, Underground Conduit Lead Technician (PEPCO Holdings, Inc),
- 6. Steve Ortel Lab Manager, (PEPCO Holdings, Inc.), and
- 7. Kenneth Boone, Plant Technician (PEPCO Energy Services).

#### 1. Introduction

On August 9, 2012, the Water Quality Division (WQD) of the District Department of the Environment (DDOE) and the U.S. Environmental Protection Agency (U.S. EPA) Region 3 conducted a National Discharge Elimination System (NPDES) Water Compliance Evaluation Inspection (CEI) at the Potomac Electric Power Company, Inc. (PEPCO), Benning Road Generating Station, located at 3400 Benning Road, NE, Washington, D.C. 20019 (or the facility). EPA Region 3 inspector, Charles Hufnagel and DDOE, WQD inspectors, Adion Chinkuyu, George Onyullo, and David Pilat reviewed records, interviewed personnel, conducted an inspection tour of the facility, and completed an EPA Form 3560-3 (Water Compliance Inspection Report (Attachment 4).

The following facility representatives participated in the inspection: Fariba Mahvi, Lead Environmental Engineer (PEPCO Holdings, Inc); Heather Brinkerhoff, HB Consulting; Roger Williams, Environmental/Safety Manager (PEPCO Energy Services); Mike Williams, Power Plant Asset Manager, (PEPCO Energy Services, Inc.); Larry Merkel, Underground Conduit Lead Technician (PEPCO Holdings, Inc); Kenneth Boone, Plant Technician (PEPCO Energy Services) and Steve Ortel, Lab Manager, (PEPCO Holdings, Inc.). The inspectors presented their credentials to facility personnel upon entry of the facility.

The weather was sunny and dry with temperature of about 90°F.

#### 2. Facility Background

PEPCO, which is referred to in NPDES Permit No. DC0000094 as "Benning Generating Station" is located on approximately 77 acres of land, and contributes stormwater and process water to the discharges authorized by the Permit. The facility consists of a generating station, a 230 kV switchyard, a 69 kV switchyard, fleet services, office and security services, transmission and distribution shops, transformer repair and testing shop, storage buildings, several parking areas, a hazardous waste/PCB handling storage facility, hazardous waste accumulation trailer, asbestos trailer, subsidiary and contractor facilities, and various outdoor storage areas (Figure 1). The generating station is owned by Potomac Power Resources (PPR) [a wholly owned subsidiary of PEPCO Energy Services (PES)].

In 2011, PEPCO transitioned from North American Energy Services (NAES) to PES for operation and maintenance of the Benning Road Generating Station. The generating station comprises of two fuel oil-based steam generators each with a rated output of 275 megawatts (used mainly during peak winter and summer seasons when electricity demand is high). There are also two fuel oil-based package boilers for auxiliary and building services. The generation station uses No. 2 fuel oil for start-up, and then switches to No. 4 fuel oil for sustained operation. Approximately 4.2 million gallons of fuel is stored on-site. When running at full capacity the plant uses 600 gallons of No. 4 fuel oil per minute. The facility representatives indicated that the

facility maintains a Spill Prevention, Control, and Countermeasure (SPCC) plan because of the large quantities of chemicals and oil stored at the site.

#### 3. Facility Closure Plans

As of June 1 2012, operations at PEPCO plant have ceased and plant decommissioning has commenced based on the facility's draft decommissioning plan (Attachments 2 & 3, Photos #1a, 1b, & 1c). PEPCO has drafted a detailed plant closure plan but, at the time of the inspection this plan had not been finalized and was not available for review. In general, it is estimated that the decommissioning process will take several months and will include cleaning, securing, and maintaining the plant and adjoining areas in accordance with District of Columbia and Federal environmental regulations. Specifically the decommissioning includes shutdown and removal of the two steam turbine units, the auxiliary boilers, the preheat generator, all related equipment and all chemicals stored at the site (Attachments 2 & 3).

Following removal of the above referenced structures, weatherproof fire suppression equipment will be installed in the generation station and the cooling tower structures will be drained, dismantled and removed. It was also stated that PEPCO's intent is to secure and leave the generation station but remove all of the remaining onsite structures. This removal will be done in accordance with all environmental regulatory requirements established by the District of Columbia and federal agencies. The facility representatives stated that the current stormwater infrastructure will be left in place.

PEPCO's NPDES Permit (DC0000094) was issued on June 19, 2009 and will expire on June 18, 2014. The permit authorizes discharge of both process water (cooling water blow down and cooling tower basin wash water) and storm water runoff. Each of these waste streams is described in the permit. Following plant shutdown, process water will no longer be produced, but stormwater will continue to be discharged and monitored.

In order to comply with District of Columbia and Federal government stormwater regulations the current NPDES Permit and associated compliance monitoring programs will be continued and maintained until the expiration of the permit. The plant personnel will plug all facility controlled river water inlets, and will discontinue the use of the sanitary sewer system. The main river water intake structure, which is regulated by the United States Army Corps of Engineers, will be left in place. However, the inspectors advised the facility representatives that they need to coordinate with the U.S. Army Corps of Engineers about the abandonment of the intake structure.

In January 2011, PEPCO and DDOE entered into a Consent Decree, which requires PEPCO to conduct a Remedial Investigation and Feasibility Study (RI/FS) of environmental conditions of the PEPCO facility and the adjacent areas of the Anacostia River. The Consent Decree was finalized on December 1, 2011 and PEPCO submitted a report detailing the findings of the RI for DDOE review on December 22, 2011. PEPCO has stated that plant closure and decommissioning procedures will not interfere with consent decree compliance.

Water Compliance Evaluation Inspection - Narrative Potomac Electric Power Company Benning Road Generating Station NPDES Permit No. DC0000094

Page 3 of 11

#### 4. Records and Reports

Discharge Monitoring Reports (DMRs) and the facility's Stormwater Pollution Prevention Plan (SWPPP) were reviewed as part of the inspection. Specifically, DMRs from April 2011 to June 2012 were reviewed along with all the supporting lab analysis and flow data used to generate the reports. The DMR and supporting data appeared to be adequate. Spot check for completeness and accuracy identified no discrepancies. Rainfall related data that was found to be omitted during the 2011 CEI has been included in current DMR's.

The facility representatives indicated that the facility revised its SWPPP in June 2012, and facility is implementing the SWPPP in accordance with the permit's Part II Section C: Storm Water Management. The inspectors reviewed the 2012 SWPPP, and it was found to be updated to include suggestions made in AMEC's 2011 annual report of the TMDL implementation plans and the PCB and Iron Source Tracking and Pollution Minimization Plan. The facility's SWPPP is combined with the Spill Prevention, Control, and Countermeasure (SPCC) plan into one document called Integrated Contingency Plan (ICP), which is updated annually. The ICP will be revised following shutdown and removal of all fuel from the facility. The inspectors reviewed 2012 ICP as part of this inspection and it was found to have been signed by the responsible corporate officials.

The facility's two in-house (onsite) laboratories, PES and PEPCO, are used to monitor (measure) effluent samples for parameters such as residual chlorine and pH. Samples for other analytes are picked up the same day or the following day by a courier and transferred to Microbac Laboratories, Inc. (Microbac) in Baltimore for analysis. A review of each lab's calibration log books indicated that each lab uses a 3-point procedure to calibrate its pH meters every month. The pH buffer solutions used in the calibration were all current at the time of this inspection (Photos #2a & 2b)). Expired pH buffers were clearly labeled and were about to be disposed of (Photo #3).

#### 5. Permit Verification

PEPCO's NPDES Permit (DC0000094) was issued to the facility on June 19, 2009 and will expire on June 18, 2014. The facility is as described in the permit. The permit has monitoring and effluent limit requirements at its outfalls or monitoring points. All known discharges from the facility are permitted.

#### 6. Operation and Maintenance

#### (a) Wastewater

The facility has two oil-water separator treatment systems:

- (i) Oil-water separation/settling system at Outfall 201, which was designed to remove oil and grease from utility wastewater and a No. 2 oil loading area. Monitoring point 201 is the discharge point from this oil-water separator. In 2011, the facility installed a new oil-water separator system, which is operational and in-service at this time (**Photo #4**).
- (ii) Oil-water separation/settling/filtration system at Outfall 003, which is a treatment system designed to remove oil, grease and solids from water that is removed from utility manholes throughout PEPCO's service area. The treatment system operates in batch mode and consists of an oil-water separator, storage and settling tanks followed by a two staged filter system of cloth and charcoal media (Photos #5a, 5b, 6a & 6b). The treated effluent is held in an underground tank (Photo #7) from where it is pumped as a batch through Outfall 003 to the Outfall 013 pipeline. If necessary, pH is adjusted before discharging. At the time of the inspection, the treatment system was not discharging to Outfall 003. The facility representatives stated that the two on-site oil-water separators will not be removed as part of the plant closure procedures.

#### (b) Stormwater

Storm water runoff from the facility is conveyed through a drainage system and is discharged to the Anacostia River and city storm sewers at various outfalls. Most of the stormwater runoff from the PEPCO's service center area is conveyed through a 36-inch to 54-inch storm drainpipe to the Anacostia River via Outfall 013 (**Photo #8**). However, the monitoring/sampling location for Outfall 013 is located near the property boundary in the PES power plant area, roughly 500 ft from its actual discharge point (end of 54" outfall pipe) (**Photo #9**).

The NPDES Permit (Number DC0000094) also authorizes the facility to discharge stormwater from Outfall 101 whose drainage area is the transformer area on the west side of the power generating building (power plant). Manhole K, the original monitoring/sampling location for Outfall 101 (**Photo #10**) has been eliminated because tidal problems from the river often made representative sampling difficult. In accordance with the reissued permit's compliance schedule, the facility has developed an alternative to the Manhole K location – which consists of compositing grab samples from 7 upstream storm drains on the west side of the power plant that discharge to Manhole K (**Photo #11**).

The facility has housekeeping procedures and best management practices (BMPs) that are in place to prevent or minimize release of pollutants to the environment. These BMPs include: adequate dikes and secondary containment; spill containment and clean-up; oil absorbent booms/filter cloth at inlets/drains (Photos #12a & 12b).

The facility representatives stated that stormwater monthly inspections are conducted by PES staff for the generating station (power plant) area and PEPCO staff for the remainder of the facility site. Both PEPCO and PES use the same reporting format, which is in the form of a checklist. The forms are signed by their respective inspectors, reviewed and initialed by their

managers. The PEPCO and PES reports currently appear to meet the intent of EPA's Multisector General Stormwater Permit. The inspectors noted that during document review the stormwater inspections for the months of April, August and December of 2011 and February of 2012, had not been filed. PEPCO believes these inspections were completed but, the report filing procedures had been mixed up during the NAES - PES transition. Documentation proving that these inspections were conducted has not yet been provided to DDOE.

#### 7. Compliance Schedules

Part VII. Special Conditions H. Manhole K. of the permit required the facility to submit for comment to EPA and DDOE, a plan (with an implementation schedule) to retrofit Manhole K (Photo #10) into a reliable monitoring point for storm water discharging from Outfall 101. The goal was to ensure that the manhole is not affected by high tides. According to the facility representatives, Manhole K sampling consists of compositing grab samples from 7 upstream storm drains on the west side of the power plant (Photo #11) that discharge to Manhole K. Sampling pans, inserted in each drain, collect the grab samples that are composited. PEPCO has contracted AMEC, their environmental consulting engineers, to actually conduct the sampling. This sampling procedure has been implemented and is a part of PEPCO's routine self-monitoring program.

Part VII. Special Conditions Section A. Conditions Applicable to PCB Sampling and Limits condition #4 of the permit requires that, upon detection of PCB analyzed by method 1668B at or above the detectable level, the facility must submit to EPA and DDOE a plan to determine the source or sources of the PCB discharge and a pollutant minimization plan. In addition, Part VII. Special Condition Section D. Iron of the permit requires the facility to conduct a study to determine the source or sources of Iron and that within 3 years of permit issuance that best management practices (BMPs) will be determined and installed at appropriate locations to reduce the release of total iron to 1.0 mg/l. In compliance with these requirements PEPCO contracted AMEC to conduct appropriate studies in the development of plans of action to meet the permit criteria. In 2011, AMEC submitted to PEPCO a PCB and Iron source Tracking and Pollutant Minimization Plan. This plan is included in PEPCO's SWPPP. In accordance with AMEC's plan findings and recommendations, PEPCO has begun implementation of a Total Suspended Solids removal system and is in the process of installing metal reducing filtering systems in each of their on-site stormwater drains.

Part VII. Special Condition Section E. TMDL Implementation Plan of the permit requires the facility to submit a plan to EPA and DDOE describing all previous, on-going and future efforts by the permittee to meet pollutant reduction loads required by the Anacostia River TMDL. In compliance with this permit condition PEPCO contracted AMEC to complete the TMDL Implementation Plan. In 2011 AMEC submitted to PEPCO a TMDL Implementation Plan. This plan is included in PEPCO's SWPPP. In accordance with AMEC's plan findings and recommendations PEPCO has begun implementation of Low Impact Developments (LIDs) in

their stormwater swale system that encourages stormwater infiltration and pollutant removal prior to entering their stormwater system.

#### 8. Self Monitoring Program

The facility has a self monitoring program. Flow measuring device (in-line totalizer water-type flow meter) at Outfall 003 (**Photo #13**) seemed to be working properly and does not need calibration, according to the facility representatives. Outfall 201's flow is estimated by metering running times (hours) of the oil-water separator's 2 influent pumps and applying their pump ratings (**Photo #14**).

The overall flow from Outfall 013 is estimated from the summation of the process water, wastewater flow at the outfalls and stormwater runoff calculated using rainfall data and runoff coefficients for the various sections of the facility. This approach appears to be consistent with Part I B. Effluent Limitations and Monitoring Requirements- Storm Water Discharges of the permit.

The facility representatives indicated that, based on recommendations of the 2008 compliance inspection, they continue to sample for oil and grease directly by using a glass bottle, inserted in a plastic sample holder which is tied to a stainless steel rod (**Photo** #15). Residual chlorine and pH samples are collected and analyzed within 15 minutes and documented in their respective lab's log books; sample temperatures are also documented on chain of custody forms (**Photo** #16). PES's monthly stormwater inspection records are essentially the same as PEPCO's. The facility's self monitoring program seemed to be in compliance with the permit requirements.

#### 9. Laboratory

As noted above, the facility includes 2 onsite laboratories and one off site (contract lab). The two onsite labs are:

- PES lab, located in the power plant, is used by PES personnel to analyze the facility's NPDES permit effluent samples for residual chlorine and pH. They also collect TSS, Oil & Grease, PCB and Metals samples which they preserve, as necessary, and refrigerate before shipment to Microbac Laboratories, Inc. in Baltimore for analysis. Microbac, also, picks up the samples which are shipped in iced coolers. PES personnel monitor Outfalls 013, 201, and previously, 202, 203. As noted earlier, PEPCO has contracted AMEC to monitor Outfall 101 (Manhole K) during storm events.
- PEPCO lab, located on the eastern side of the site where PEPCO's electrical services (shops, etc.) are based, essentially serves PEPCO's electric utility operations but also supports the PEPCO personnel's self-monitoring obligations regarding the facility's NPDES permit. Specifically, at Outfall 003, PEPCO personnel collect and analyze pH samples as well as collect TSS, Oil & Grease and PCB samples and similarly preparing

them (as noted above for PES) for pickup and analysis by Microbac. The samples are kept in a refrigerator until they are picked up by Microbac or its courier (Photo #17).

Each lab's calibration log book indicated that each lab uses the 3-point procedure to calibrate their respective pH meters for each of the monthly samples. Also, their respective pH buffer solutions (4, 7, and 10) used in their calibrations, were all current (unexpired) at the time of this inspection (**Photos #2a & 2b**).

The facility contracts some services to an offsite laboratory (Microbac Laboratories, Inc., located in Baltimore, Maryland). Microbac analyzes the facility's samples for total suspended solids, oil & grease, PCB and metals. Microbac lab conducts Quality Control duplicate sample analysis and internal spike analysis on every tenth sample received. Microbac lab was not included as part of the subject inspection. All the three labs participate in the EPA's 2012 DMR QA Studies and they passed this year's test.

#### 10. Effluent and Receiving Waters

The facility's permitted discharges consist of: non-contact cooling water; cooling tower blow down; treated wastewater (by oil/water separator, settling and filters) effluent; cooling tower basin wash water; cooling water from boiler feed pumps; demineralization; regeneration wastes; groundwater infiltration sump water; fireside washing; miscellaneous cleaning waste, water for hydrostatic tank testing; and stormwater. A majority of these flows are discharged to the Anacostia River (through wetlands) via Outfall 013 (Photos #8, 9, 20, & 21). Due to plant closure/decommissioning, no process water was being produced during the CEI. PES staff samples and conducts self-monitoring activities at Outfalls 201 (Photo #12a), 202 (Photo #19), 203 (Photo #18), and 013(Photo #9) while PEPCO staff samples Outfall 003 (Photo #13). Effluent samples for Outfall 013 are collected at a manhole (Photo #9) roughly five hundred feet upgradient from the end of the discharge pipe. Samples for Outfalls 003 and 201 (oil-water separators) are collected at the end of their respective treatment system's discharge pipe before entering Outfall 013. Samples for Outfalls 202 and 203 were collected from the cooling tower sumps (Photos #18 & 19) before plant decommissioning.

The following outfalls are listed in the Permit, some are internal and some have monitoring requirements with discharge limits.

Outfall	Description	Monitoring	Limits
$003^{1}$	Internal, oil-water separator	X	X
$013^{2}$	Discharges to Anacostia River	X	X
101 <sup>3</sup>	Stormwater, Discharges to Anacostia River	X	
2014	Internal, wastewater from oil-water separator, reverse osmosis regenerate, boiler blow down	Х	X
202 <sup>5</sup>	Internal, cooling tower blow down	X	X
203 <sup>5</sup>	Internal, cooling tower blow down	X	X

#### Notes:

- 1. Monitoring point 003 is the discharge point from a treatment system designed to remove oil, grease and solids from water removed from utility manholes and transported to the facility. The treatment system operates in batch mode and consists of an oil-water separator, settling tank followed by a two staged filter system of cloth and charcoal media (Photos #5, 6, 7, & 13).
- 2. Monitoring point 013 has two sets of monitoring requirements and effluent limits. These requirements vary depending on whether or not there is a discharge of cooling tower blow down. See Part I.B and Part VII of the permit.
- 3. Monitoring point 101 is manhole K for monitoring stormwater from the transformer area on the west side of the power plant. As required by the permit, the facility has modified their sampling method due to tidal interference within Manhole K as noted above (See Section 7: Compliance Schedules). The outfall discharges to the Anacostia River across Benning Road.
- 4. Monitoring point 201 is the discharge point for the treated wastewater coming out of the new oil-water separator which was put in service on 3/31/11.
- 5. Monitoring points 202 and 203 have two sets of monitoring requirements and effluent limits. These requirements vary depending on whether or not there is a discharge of cooling tower blow down (Part I.D.) or cooling tower wash water (Part I.E). According to Ms. Brinkerhoff (HB Consulting), only the cooling tower blow down is discharged to the river. Cooling tower wash water has only been generated twice in the past 5 years essentially before inspecting the cooling towers. At any rate, it is pumped to a tanker truck and hauled for treatment.
- 6. Due to plant closure, process effluent will no longer be produced and Outfalls 202 and 203 will no longer be sampled.

#### (a) Outfall 003

Outfall 003 is an internal outfall that discharges batch flow (pumped) from the treated water holding tank to the manhole of the 48" section of the main pipeline, which ultimately becomes the 54" main pipeline discharging as Outfall 013. Outfall 003's discharge is measured by an in-

line (totalizer) flow meter in the effluent discharge line (**Photo #13**) and sampled from the underground effluent holding tank during discharge (**Photo #7**). The outfall was not discharging at the time of inspection because the operators were waiting for lab results. The treatment system (oil/water separator/settling tank/filters) was operable at the time of inspection, but offline for discharge.

#### (b) Outfall 201

Outfall 201 is a major internal monitoring and discharge point for the facility's industrial wastewater and some stormwater. A duplex pump system (each rated at 500 gpm) intermittently pumps the stormwater and wastewater from the various power plant related processes to the new oil/water separator that has been in operation since 3/31/11. According to the facility reps, the system has a surge valve which would bypass treatment and flow directly to Outfall 201 if ever activated. They pointed out that the valve is kept in a locked position and no one could recall any bypass incidents, at least in recent years. As noted above, Outfall 201's flow is estimated by metering running times (hours) of the oil water separator's 2 influent pumps and applying their pump ratings to calculate its flow (Photo #14).

Outfall 201 discharges into a manhole mounted on a 48" section of the Outfall 013 pipeline (**Photo #12a**). Here, it mixes with any stormwater and other process wastewater (i.e. Outfall 003) from up gradient as well as any ensuing down gradient stormwater and wastewater (i.e. previously Outfalls 202 & 203, now eliminated) that could be entering this main pipeline which discharges as Outfall 013. There was no discharge from Outfall 201at this particular time of the inspection tour.

#### (c) Outfalls 202 and 203

Both Outfalls 202 and 203 received blow down discharges from cooling towers for units 15 and 16, respectively, which are then conveyed to Outfall 201. The flows from 202 and 203 were estimated using a valve rating system, according to facility representatives. Outfalls 202 and 203 discharge only when the facility is discarding the cooling water because of high conductivity. Each tower has a pump house for cooling (river) water where pH adjustment can also be made, if necessary. Samples for Outfalls 202 and 203 are collected from the cooling tower sumps (Photos #18 & 19). No discharge was observed during the CEI as the cooling towers had been out of operation due to the power plant decommissioning. Only stormwater remained in the tower sumps.

#### (d) Outfall 013

Outfall 013 is the facility's largest outfall (Photo #8, 20 & 21). It is a 54" pipe that discharges a combined stream of both process wastewater and stormwater. The permit regulates the various discharges originating from 2 oil/water separators, non-contact cooling water, cooling tower blow down, basin cleaning wastes from two cooling towers, and stormwater from several locations within the facility. The flow from Outfall 013 is estimated from the summation of the process outfalls and stormwater runoff calculated using rainfall data and runoff coefficients for

the various sections of the facility. This approach appears to be consistent with Part I. B. of the permit.

The outfall discharges into a wetland, a few hundred feet from the Anacostia River (**Photo #20**). Outfall 013 was discharging a small amount of water during the CEI. The water appeared to be clean and turbidity free, possibly groundwater infiltration. The receiving water at the discharge point of 013 was brownish in color, turbid or cloudy in appearance and had what appeared to be petroleum sheen. It was not apparent where the turbidity and sheen originated but it did not seem to be directly related to the current observed effluent stream (**Photo #21**). There were other outfall pipes, here, adjacent to Outfall 013 which apparently discharged stormwater from nearby areas of the City.

#### (e) Outfall 101

Outfall 101 discharges stormwater to the Anacostia River, and is located near the facility's river water intake point (**Photo #11**). It conveys runoff from the transformer area on the west side of the power plant building (**Photo #22**). As noted above, the facility completed their compliance schedule to allow representative sampling for Outfall 101 since Manhole K, its original monitoring location, has often been impacted by high tides from the Anacostia River. Since there was no stormwater runoff to the source inlets at this time, there was no Outfall 101 discharge to the river except for possible groundwater seepage into the storm drain system.

#### 11. Recent Improvements on Spillover from Cooling Towers

The inspectors confirmed that the previously reported repairs to the cooling towers had been properly repaired. It was observed that PEPCO had repaired leaks, installed wooden splash guards and angled boards as well as adjusted louvers to contain and redirect splashing cooling water into the cooling tower's basin (Photo #23). The facility has also put absorbent oil boom around manholes that lead to city stormwater sewer systems (Photo #24). Due to these improvements and the fact that the facility is closing, it is concluded that there will be no more cooling water splashing into the street (Photo #25).

#### 12. Findings/ Follow up

• Improper/Incorrect Reporting- Monthly stormwater inspection reports were omitted for the months of April, August and December of 2011 and February of 2012.

#### Attachments

- 1. Photo Log.
- 2. Fact Sheet about Closing the Benning Road Power Plant.
- 3. Decommissioning the Benning Road Power Plant
- 4. EPA Form 3560-3 Water Compliance Inspection Report

#### **Inspection Photo Log**

Water/NPDES Compliance Evaluation Inspection Potomac Electric Power Company (PEPCO), Inc. Benning Generating Station 3400 Benning Road, NE Washington, DC 20019

#### NPDES No. DC0000094

**Inspection Date:** 

August 9, 2012

**DDOE Inspectors:** 

Adion Chinkuyu, P.E., Environmental Engineer

George Onyullo, Environmental Protection Specialist

David Pilat, Environmental Protection Specialist

**EPA Inspector:** 

Charles Hufnagel, Environmental Engineer

#### **PEPCO Representatives:**

- 1. Fariba Mahvi, Lead Environmental Engineer (PEPCO Holdings, Inc),
- 2. Heather Brinkerhoff, HB Consulting, LLC,
- 3. Mike Williams, Power Plant Asset Manager (PEPCO Energy Services),
- 4. Roger Williams, Environmental/Safety Manager (PEPCO Energy Services),
- 5. Larry Merkel, Underground Conduit Lead Technician (PEPCO Holdings, Inc),
- 6. Steve Ortel Lab Manager, (PEPCO Holdings, Inc.),
- 7. Kenneth Boone, Plant Technician (PEPCO Energy Services).

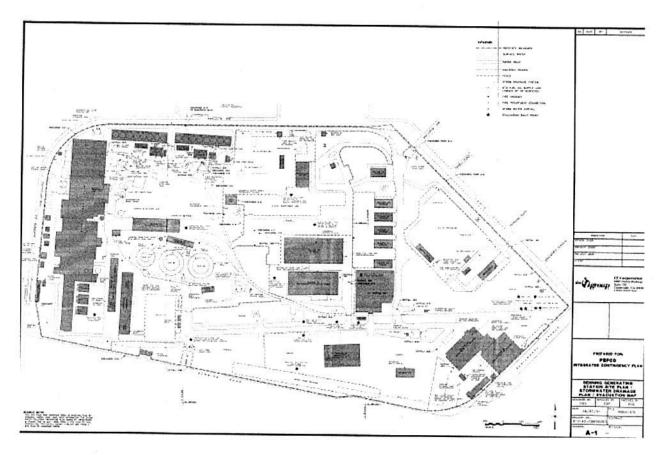


Figure 1: PEPCO Benning Generating Station – site plan and stormwater drainage plan.

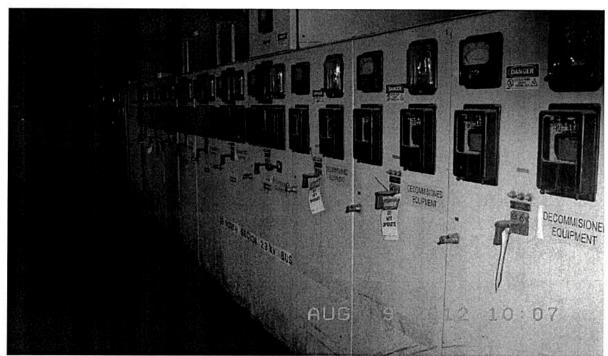


Photo #1(a): Some of the decommissioned equipment at the PEPCO facility.

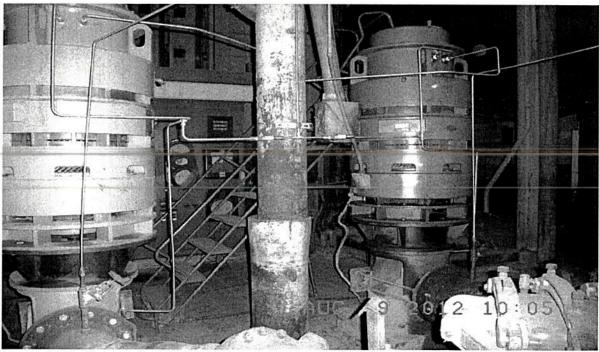


Photo #1(b): Decommissioned intake pumps at the facility.

Page 3 of 18

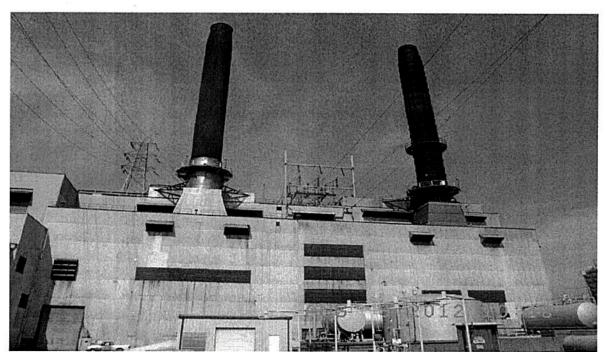


Photo #1(c): Two metal stacks will be removed as part of the decommissioning process.



Photo #2(a): Non-expired pH buffers in the in-house lab at PEPCO Energy Services (PES).

Page 4 of 18



Photo #2(b): PEPCO's in-house lab – non-expired pH buffers.



Photo #3: PEPCO Energy Services (PES) in-house lab – expired pH buffers are clearly labeled and ready to be disposed of.

Page 5 of 18

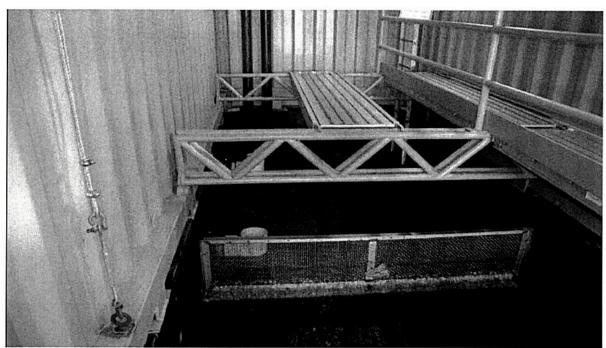


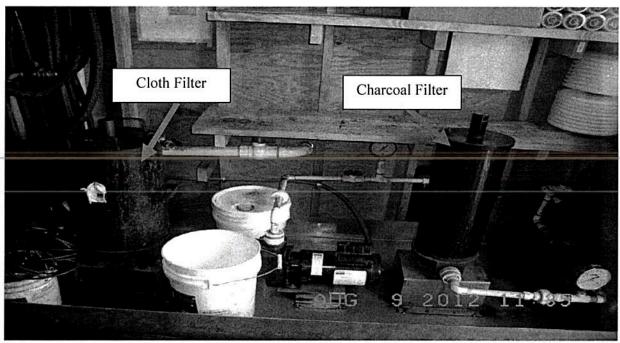
Photo #4: Oil-water separator at Outfall 201.



Photo #5(a): Oil-water separator at Outfall 003.



Photo #5(b): An empty tank at the oil-water separator for Outfall 003.



**Photo #6(a)**: A two-stage filter system as part of the oil-water separator treatment system at Outfall 003.

Page 7 of 18

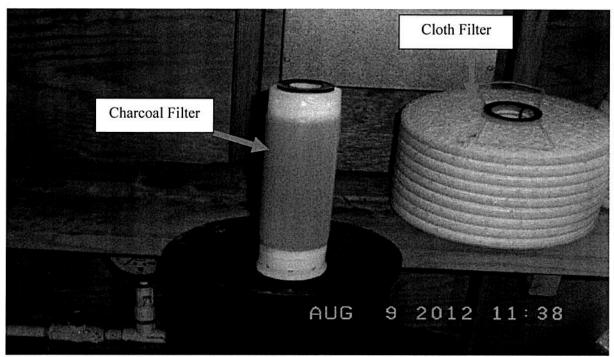


Photo #6(b): Charcoal and cloth filters used in the oil-water separator at Outfall 003.



**Photo** #7: At Outfall 003, treated effluent is stored in an underground storage tank while waiting for the laboratory results.

Page 8 of 18



Photo #8: Outfall 013 at the Anacostia River (receiving waters). Notice the additional Outfall pipe on the left.

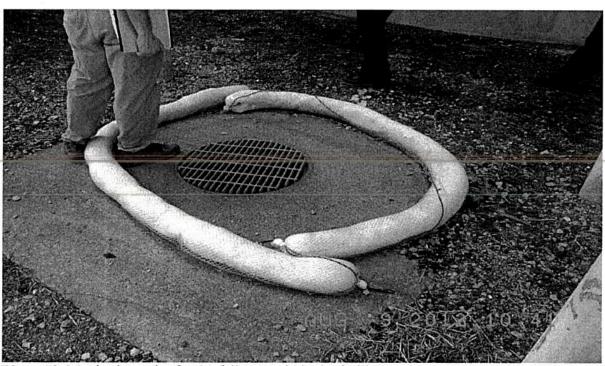


Photo #9: Monitoring point for Outfall 013 (within the facility's property line).

Page 9 of 18

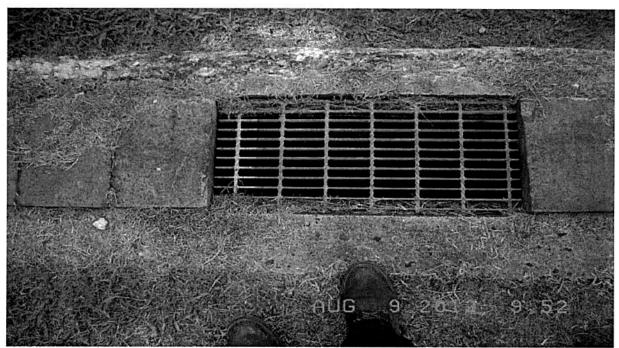
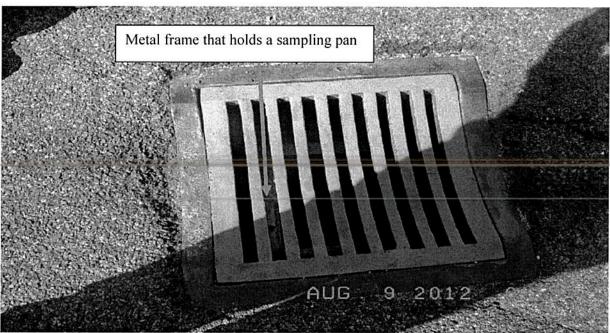


Photo #10: Outfall 101 (Manhole K) for stormwater.



**Photo #11:** One of the seven compositing grab sampling locations for Outfall 101. Notice the metal frame inside, which is used to hold a sampling pan that captures a stormwater sample as the runoff water enters the manhole to Outfall 101.

Page 10 of 18

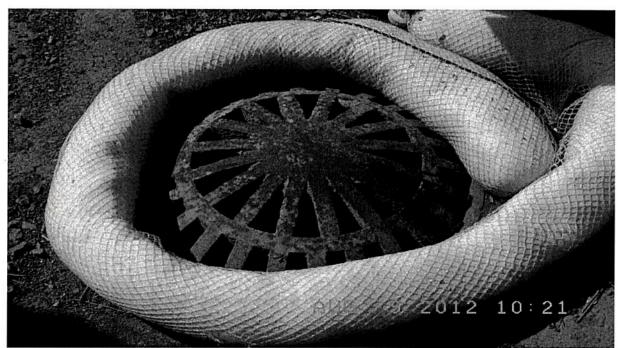


Photo #12(a): Best management practices -oil absorbent boom around a manhole at Outfall 201.



Photo #12(b): Best management practices – secondary containment area around a transformer.

Page 11 of 18



Photo #13: Flow measuring meter and sampling location at Outfall 003.

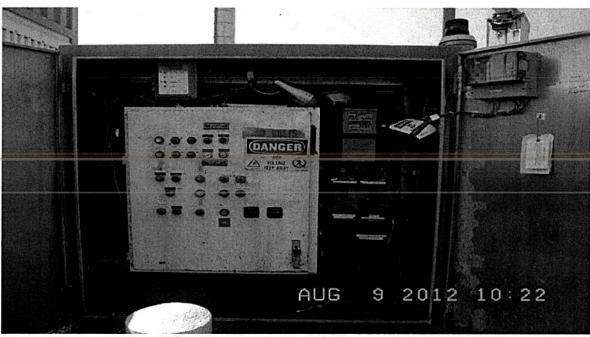


Photo #14: A control panel for oil-water separator's influent pumps, which includes running time (hours) meters used to estimate flow at Outfall 201.

Page 12 of 18



Photo #15: A stainless steel container used during sampling to hold glass bottles for oil and grease samples.

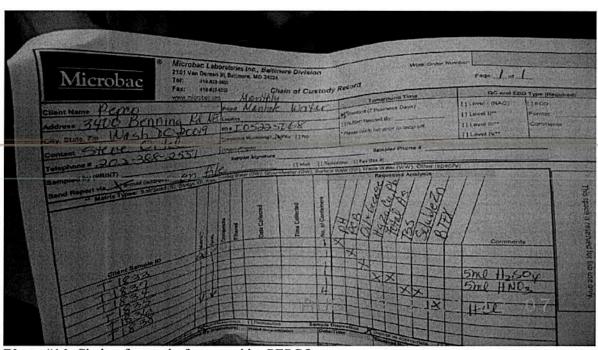
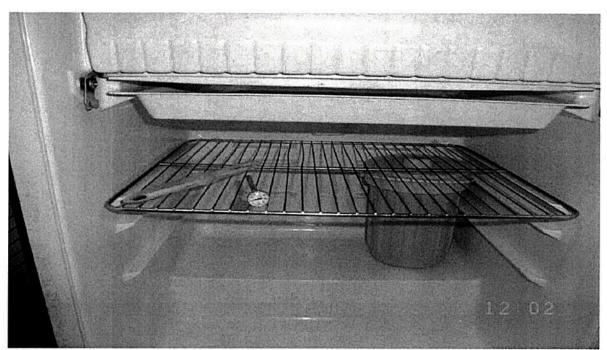


Photo #16: Chain of custody form used by PEPCO.

Page 13 of 18



**Photo #17:** Water samples are kept in a refrigerator until picked up by Microbac or its courier. Note the thermometers used to monitor the temperature in the refrigerator.

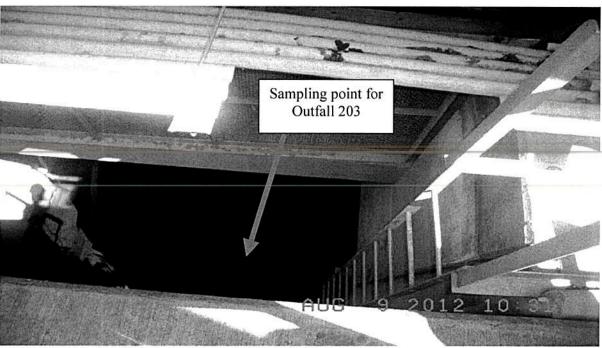


Photo # 18: Outfall 203 at cooling tower for Unit 16.

Page 14 of 18

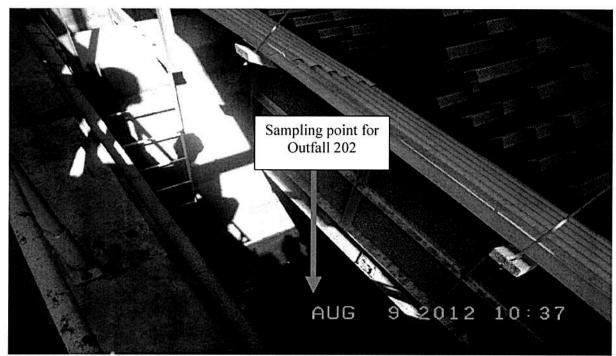


Photo # 19: Outfall 202 at cooling tower for Unit 15.



Photo # 20: Outfall 013 discharges into the Anacostia River in a wetland.



**Photo #21:** There was some oil sheen and brownish water at Outfall 013. It is not apparent where the turbidity and sheen originated but it did not seem to be directly related to the current observed effluent stream.



Photo #22: Stormwater drainage area for Outfall 101.



Photo #23: Installed wooden splash guards and angled boards as well as adjusted louvers to contain and redirect splashing cooling water into the cooling tower's basin



Photo #24: Oil absorbent boom around a manhole that leads to City stormwater sewer system.

Page 17 of 18

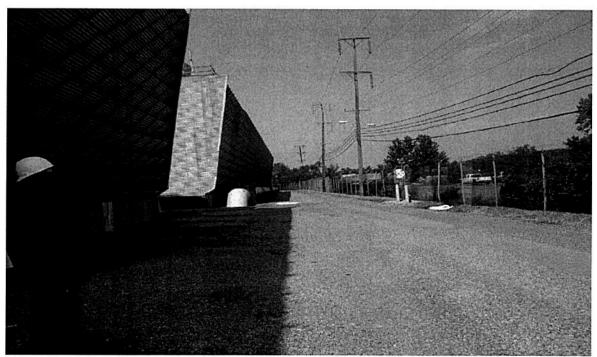
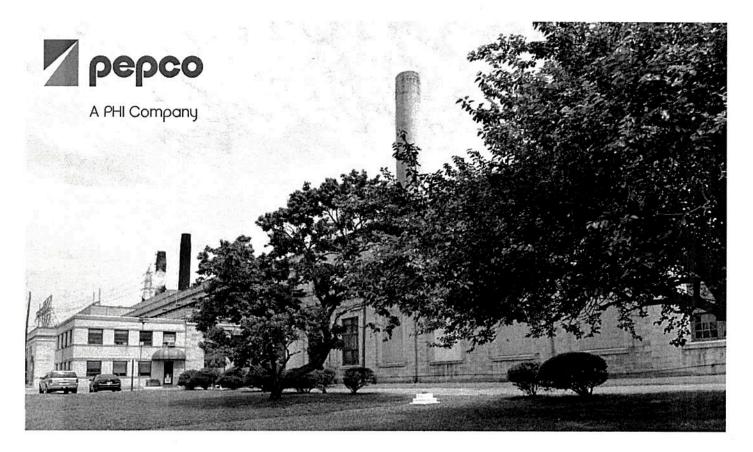


Photo #25: There is no more cooling tower water splashing onto the street.

# **ATTACHMENT 2:**

FACT SHEET ABOUT CLOSING THE BENNING POWER PLANT



# Facts about:

# Closing the Benning Power Plant

Pepco Energy Services (PES), a Pepco Holdings-affiliated company, is planning to close its Benning Road Power Plant. Operations at the power plant will cease by the end of May 2012 and the site will be cleaned, secured and maintained in a state of indefinite closure. There are no plans to redevelop the power plant site.

#### What is the Benning Road Power Plant?

The power plant was constructed in 1906 and several different generating units, running on different types of fuel, have been operated and subsequently retired over the plant's life. Currently, the plant has only two steam turbine units, one installed in 1968 and the other in 1972, that together can provide 550 MW of electricity; enough to meet the needs of around 180,000 homes. These units were designed to operate a limited number of days each year, and historically have operated for about 10 to 15 days per year on average, to ensure reliable power to Pepco's customers during periods of peak electricity demand. The power plant occupies less than twenty percent of the total footprint of the Pepco Benning Road Facility. All power plant equipment is located on the western portion of the Pepco property along Anacostia Ave.,

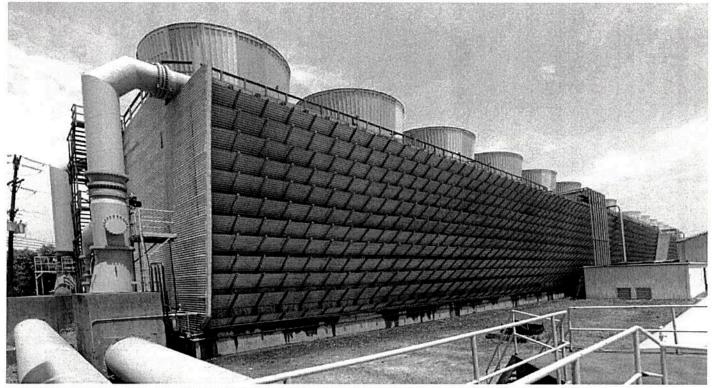
which separates the Pepco property from the National Park Service land along the Anacostia River.

# Why Is Pepco Closing the Benning Road Power Plant?

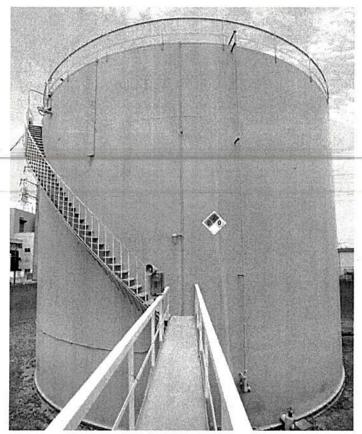
PES announced its intention to close the Benning Road Power Plant in 2007 based on past and planned upgrades to Pepco's transmission grid that will eliminate the need for electricity generated by the plant. Pepco is making further transmission upgrades to ensure the reliable delivery of power to the company's customers after retirement of the power plant, and these are scheduled to be completed by early 2012.

## What Is the Process for Closing the Plant?

PES must follow strict procedures designated by District of *(continues)* 



These cooling towers — part of the Benning Road Power Plant — will be dismantled and removed following closure of the plant. PES will arrange for the component materials to be reused, recycled or disposed of according to accepted environmental standards.



The fuel oil storage tanks that supply the Benning Road Power Plant will be dismantled and removed. Component materials will be properly reused, recycled or disposed of.

Columbia and U.S. Government agencies for decommissioning the power plant and its associated systems. PES is currently seeking the necessary permits and authorizations from District agencies to remove certain equipment, such as the fuel tanks and the cooling towers, upon closure of the plant. In addition, PES has identified the activities required to decommission the power plant in compliance with all safety and environmental regulations and is pursuing those activities that can be performed in advance of the power plant's closure. At the conclusion of power production operations, PES also will terminate the environmental permit to operate a power plant at the Benning Road facility. Until the power plant is closed, PES continues to operate in full compliance with the Clean Air Act, Clean Water Act and all other applicable District and Federal regulations.

For more information contact:

Fariba Mahvi Lead Environmental Engineer & Benning Road Project Manager 202-331-6641 Donna Cooper Vice President District of Columbia Affairs 202-872-2477

## **ATTACHMENT 3:**

# **DECOMMISSIONING THE BENNING ROAD POWER PLANT**

#### **Decommissioning the Benning Road Power Plant**

As of June 1, operations at the Benning Road Power Plant have ceased as announced by Pepco Energy Services (PES), a wholly owned subsidiary of Pepco Holdings, Inc., which has owned and operated the power plant since 2000. The power plant is located on the western most portion of the Benning Service Center site, where it occupies approximately 25 percent of the facility's 77 acres. Preparations for closing the power plant have been underway since 2007. As part of the closure, the plant and adjoining areas will be deaned, secured, and maintained in accordance with District of Columbia and Federal environmental regulations.

#### What was the Benning Road Power Plant?

The power plant was built in 1906, and provided Pepco's first system-wide electricity supply to the District of Columbia and nearby Maryland suburbs. Over the years, the power plant operated and subsequently retired several different generating units, reflecting advances in technology and operating on different types of fuel. Two oil-fired steam turbine units, installed in 1968 and 1972, provided a combined 550 MW of electricity; enough to meet the needs of around 180,000 homes. Designed to operate a limited number of days each year, these units operated an average of 10 to 15 days annually to ensure reliable power to Pepco's customers during periods of peak electricity demand.

#### How will the Power Plant Decommissioning be implemented?

As of June 1, operations at the Benning Power Plant have ceased as scheduled and PES has placed the plant into an idle condition termed a "Cold Closure". The next steps are to clean and secure the plant and portions of the property as required by District of Columbia and Federal environmental regulations and good management practices. The power plant decommissioning will proceed during the course of the next several months.

#### What is "Cold Closure"?

Cold Closure is defined as a condition in which utility service to the Power Plant is disconnected, and no longer operable. Cold Closure is intended to require only essential maintenance until the plant is completely decommissioned. As a part of Cold Closure, all systems that are subject to failure due to freezing will be decommissioned, and materials used in power plant operations will be removed.

#### What happens during the Closure?

The first step for the closure of the Benning Power Plant is to shutdown the two steam turbine units, the auxiliary boilers, the preheat generator, and all related equipment. Next, weatherproof fire suppression equipment will be installed as required by the District of Columbia Fire Marshal. Then, the cooling tower structures will be drained, dismantled and removed.

PES will follow all environmental regulatory requirements established by the District of Columbia and federal agencies. These requirements fall into several categories including air pollution control, water pollution control, solid and hazardous waste management, above ground tanks,

and several requirements pertaining to maintenance of buildings (e.g., polychlorinated biphenyls (PCBs), asbestos, lead-based paint, mold). Specific closure activities under each of these categories are discussed below.

#### **Air Pollution Control**

• The plant will no longer create air emissions; therefore, the air permit issued by the District Department of the Environment will be modified to exclude the power plant and cover only sources of air emissions at the Benning Service Center.

#### Water Pollution Control

- Stormwater discharges will continue to be managed under the EPA-issued National Pollutant Discharge Elimination System (NPDES) permit. However, process water discharges from the plant (e.g., cooling tower blow down) that are currently covered under the NPDES permit, will no longer occur.
- The water intake structure, regulated by the United States Army Corps of Engineers (USACE), will be left in place. All other river water inlets for the plant will be isolated (plugged) so that water can neither enter nor flow out of the plant.
- The use of the sanitary sewer system will discontinue; therefore, the power plant's
  connections to District of Columbia water system will no longer be required and will be
  discontinued.

#### Solid/Hazardous Waste

- Miscellaneous containers of hazardous materials, universal wastes, and lead-based paint (LBP) will be inventoried, managed, and disposed of in properly permitted off-site disposal facilities.
- Any PCB-containing equipment or structures identified will be inventoried, and equipment with PCB-containing materials will be removed and disposed of in properly permitted off-site disposal facilities.
- LBP locations will be inventoried; and as closure activities remove structures or equipment containing LBP, these items will be managed or remediated in accordance with lead paint regulations.
- Any asbestos will remain in place. Ongoing inspections and maintenance will be performed to manage asbestos until demolition of structures containing asbestos is warranted.

#### **Above Ground Tanks**

 Fuel oil tanks and all other process tanks will be emptied, cleaned, dismantled and removed.

#### **Buildings/Structures**

- The need for roof repairs and maintenance will be evaluated, and repairs will be made as needed to prevent leaks.
- All containers and piping containing oil and other fluids will be emptied, deaned and removed or properly abandoned.

#### Does the Power Plant Closure affect the Service Center?

No, the Power Plant occupies approximately 25 percent of the facility's 77 acres. The Service Center occupies the largest part of the property, and accommodates about 700 Pepco employees. Service Center employees work in maintenance and construction of Pepco's electric transmission and distribution system; system engineering; vehicle fleet maintenance and refueling; and central warehouses for all the materials, supplies and equipment needed to operate the Pepco electrical distribution system. The closure of the Benning Power Plant only affects the plant area.

### How does this affect the Benning Consent Decree?

The Benning Consent Decree is a legal agreement between the District of Columbia's Department of the Environment and Pepco and PES that requires an assessment of environmental conditions known as a Remedial Investigation/Feasibility Study (RI/FS), at the Benning Road site and adjacent areas of the Anacostia River. The RI/FS will continue on schedule as the power plant decommissioning plan is implemented.

#### For more information contact:

Fariba Mahvi Lead Environmental Engineer & Benning Road Project Manager 202-331-6641

Donna Cooper Vice President District of Columbia Affairs 202-872-2477